Luxembourg, 24 June 2016

Environmental and Social Data Sheet

Overview

Project Name:	DEUTSCHE TELEKOM MOBILE BROADBAND
Project Number:	2016-0025
Country:	GERMANY
Project Description:	The project concerns the investments in the expansion and modernization of the promoter`s mobile 3G/4G broadband network. The objective is to create a more competitive network with increased network coverage and more capacity for a wider provision of advanced mobile data services in Germany. The operation will be implemented in the years 2016 to 2017.
EIA required:	No
Project included in Carbon Footprint Exercise[1]:	Yes

(details for projects included are provided in section: “EIB Carbon Footprint Exercise”)

Environmental and Social Assessment

Environmental Assessment

The project relates to investments in mobile network infrastructures which use radio based technology emitting electromagnetic signals. In Germany, the exposure limits for such radiation emissions are stipulated in the related emission law (26. BImSchV) which is based on the EU recommendation (1999/519/EC / ICNIRP principles).

These rules are further complemented by a self-commitment of the mobile operators. Those commitment targets aim to improve the consumer, environmental and health protection through better cooperation with communes, site sharing, assessment of alternatives, better information and confidence building measures when setting up or modifying mobile radio networks. The effectiveness of the cooperation is verified by a bi-annual report and they confirmed the gradually improving effectiveness by a declining number of controversial issues around mobile networks rollouts.

The investments for this loan are mainly about the modernisation of old equipment with latest and more efficient one at existing sites. In order to improve network coverage also a small percentage of new sites will need to be erected, often on existing towers or even small micro cell sites. The promoter is also actively promoting site sharing; currently 55% of all sites are shared with other operators whereby 27% are shared with even 3 or 4 operators. Further efforts are put into a reduction of the visual impact by using antenna designs with less visual impact or in some cases even camouflaging them. Therefore the impact during implementation and operation is considered limited.

In Germany such new or modified installations require a site certificate which is issued by the federal network agency. The certificate will assess the operational parameters under a “worst-case” scenario and specify the required safety distance. Such certificated sites will be verified by the agency through site inspections which are complemented by regular radiation emission measurements in Germany. Latest measurements suggest that the radiation exposure created by mobile networks is well below the required thresholds.

[1] Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100,000 tons CO2e/year absolute (gross) or 20,000 tons CO2e/year relative (net) – both increases and savings.

The promoter operates about 10% of its sites in areas under different types of environmental protection. Many of such sites have been erected before the areas became protected however Deutsche Telekom is also having a universal service obligation or is even sometimes asked to erect sites in environmentally protected areas for touristic reasons. In such cases the sites will be erected under strict conditions including related offset measures.

EIB Carbon Footprint Exercise

For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost.

The estimated annual emissions of the project after the implementation will be:

- absolute (gross): 272.9 kT CO2e/year
- relative (net): -54.2 kT CO2e/year

The absolute CO_2 emissions of this mobile Telecom network is particularly high due to the fact that the network is really large and the investment program concerns the renewal of the entire mobile network while using more energy efficient equipment.

Deutsche Telekom has developed for the entire company a sophisticated and long term CO_2 emission model in order to project the 2020 emissions. According to this model the emissions peak in 2014 despite a continued deployment of new additional equipment. The key driver for the CO_2 reduction is among other measures the mobile network modernisation which will help to bring down the emission by 10% until 2020.

Other Environmental and Social Aspects

The promoter has developed a comprehensive corporate social responsibility policy. The key areas of this policy comprise the customers, the suppliers, the environment and the employees. The continuous efforts in this field are reflected in the increasing number of sustainability indices in which Deutsche Telekom is listed such as DJSI World/Europe and FTSE4GOOD.

Health, safety and environment are also important elements of DTAG's operations. Therefore the promoter has made efforts to obtain the most important certifications such as OHSAS 18 000 regarding occupational health, ISO 14001 regarding environmental management and also ISO 9001 regarding quality management.

Conclusions and Recommendations

The project activities do not fall under Annexes I and II of the EU Directive 2011/92/EC, and are therefore not subject to an Environmental Impact Assessments (EIA). Generally, mobile networks have limited environmental effects.

The impact during implementation will be limited as the vast majority of new equipment will be put on existing sites and replace old and less efficient equipment. The main impact during operation, such as the radiation emissions or the visual detraction, will be mitigated by very well-developed site sharing, site design and operational measures of Deutsche Telekom.

Potential health risks from electromagnetic radiation are regularly measured by the competent authorities and are well below the ICNIRP thresholds, still considered appropriate.

Therefore the project is classified as acceptable with minor residual impact and it is therefore eligible for the Bank's financing.